



# NATIONAL WEATHER SERVICE

## DECISION SUPPORT NEWS

### SPRING 2014

SPRINGFIELD, MO

[www.weather.gov/springfield](http://www.weather.gov/springfield)

## SPRINGTIME DECISION SUPPORT

*The National Weather Service (NWS) provides weather, hydrologic, and climate forecasts and warnings for the United States, its territories, adjacent waters and ocean areas, for the protection of life and property and the enhancement of the national economy.*

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After a cold winter, we look forward to spring and the potential weather hazards it brings. Now is the time to ensure you are prepared to accurately monitor and respond to severe weather. This newsletter will highlight some of the tools, services, and products available from the National Weather Service in Springfield to help your decision making.

## Integrated Warning Team (IWT) Workshop

NWS Springfield, Missouri in cooperation with local emergency management and media held an Integrated Warning Team (IWT) Workshop on February 25th in Springfield, Missouri. This one-day event brought together emergency managers, media, Skywarn, and other agencies including Missouri state parks and healthcare officials. Objectives of this workshop were to 1) build relationships among key players, 2) identify challenges and solutions to improving warning communications, and 3) integrate social science findings and concepts with the ultimate goal of promoting a unified warning message to maximize public response to weather information and warnings.

This workshop provided a great opportunity to continue building healthy partnerships and listen to one another's perspectives, challenges and proposed solutions. A social science perspective was presented by Kathy Sherman-Morris of Mississippi State University which provided the backdrop for discussions for the remainder of the event. Many topics were discussed in relation to improving communications among IWT members, creating a consistent warning message and improving warning response through collaborative initiatives.

Some of the specific topics discussed included promotion of a standard outdoor siren policy, improving the sharing of storm reports through NWSChat, creating common weather hazard awareness materials, exploiting the use of social media with consistent messaging, and solidifying pre-event services and communication.



This IWT was a launching point. Project groups bringing together the experience and expertise of all participants will be formed to address the identified action items and initiatives. Additional IWT's on a seasonal basis will be conducted to continue to the discussion and identify solutions on improving the warning system.



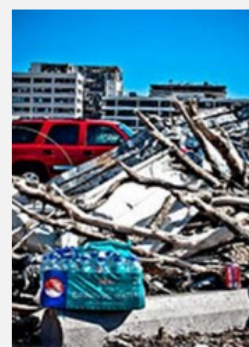


## IMPACT BASED WARNINGS

Impact Based Warnings are issued with emergency management, media and other core partners in mind with the goal to 1) improve communication of risk, 2) highlight potential impacts, and 3) make important information easier to find within the warning message

Impact Based Warnings will include "tags", or short descriptors at the very end of a warning, that are considered supplemental data (generally not seen by the public). The intent of these "tags" is to better convey potential risks and impacts within the warning message. This will not require a new warning, but will be appended to the bottom of a warning and follow-up Severe Weather Statements.

Tornado warnings will continue to be issued as they have in the past and specify whether the tornado was "RADAR INDICATED" or "OBSERVED," by a spotter, law enforcement, etc. However, two new damage tags have been developed, Damage Threat "CONSIDERABLE" and Damage Threat "CATASTROPHIC".



| Tornado Tag               |  |
|---------------------------|--|
| TORNADO...RADAR INDICATED | Evidence on radar and near storm environment is supportive, but no confirmation. |
| TORNADO...OBSERVED        | Tornado is confirmed by spotters, law enforcement, etc.                          |

| Tornado Damage Threat Tag            |  |
|--------------------------------------|--|
| No Tag                               | Use most of the time, when tornado damage possible within the warning polygon. Tornado duration generally expected to be short-lived   |
| TORNADO DAMAGE THREAT...CONSIDERABLE | Used rarely, when there is credible evidence that a tornado, of stronger variety, is imminent or ongoing. Tornado duration generally expected to be long lived   |
| TORNADO DAMAGE THREAT...CATASTROPHIC | Use exceedingly rarely. Only when there is <b><u>DI-RECT observational evidence that a tornado, of stronger variety, is striking or about to strike a population footprint with 100% certainty.</u></b> Tornado duration generally expected to be long lived. False alarm rate should be ZERO. |

| Tornado Tag In Severe Thunderstorm Warnings |  |
|---|--|
| TORNADO...POSSIBLE                          | A severe thunderstorm has some potential for producing a tornado although forecaster confidence is not high enough to issue a Tornado Warning. |

Severe Thunderstorm Warnings will contain hail and wind "tags" at the very bottom of the warning. If we are anticipating the hail size to be 2.75 inches (baseball size) or larger and/or the winds to be 80 mph or greater, the follow-up statement will BE included within the body of the warning, "This is a very dangerous storm." These selections will **not** require a new warning to be issued.

In **rare** cases, a particular storm may have a small potential for a tornado (land spout, squall line tornado) and the forecaster's confidence is too low to issue a Tornado Warning. In this case, within the Severe Thunderstorm Warning or follow-up Severe Weather Statement, a "Tornado...Possible" tag may be appended within the supplemental data at the very bottom of the warning. This allows those in decision making positions an opportunity to follow that particular storm a bit closer and monitor for a potential upgrade to a Tornado Warning.

The "TORNADO DAMAGE THREAT...CONSIDERABLE" tag will only be used in rare circumstances where environmental conditions, interrogating radar data, and/or observations from spotters indicate there is a greater risk for life-threatening significant damage. This tag will convey that significant damage is imminent or occurring.

In **EXCEEDINGLY RARE** cases, the "TORNADO DAMAGE THREAT...CATASTROPHIC" tag may be utilized to highlight particular areas in the direct path of a violent tornado. An associated "TORNADO EMERGENCY" headline will list these anticipated areas to quickly communicate areas at immediate risk. You may note that the language of the call to action associated with this tag has been toned down a bit from last year. This is due to feedback from social scientist that a statement of "you will be killed if not underground or in a storm shelter" may lead to an undesired response of leaving relatively safe structures and potentially being caught in the open by the tornado.

For more information visit: [http://www.crh.noaa.gov/news/display\\_cmsstory.php?wfo=crh&storyid=79552&source=0](http://www.crh.noaa.gov/news/display_cmsstory.php?wfo=crh&storyid=79552&source=0)



## WARNING SERVICES

### NWS WARNING PRODUCTS AND HAZARD MONITORING

To warn you of thunderstorm hazards and the potential threat to life and property, the NWS issues warnings based on radar detected or observed reports of flooding rains, hail, damaging winds and tornadoes. Warnings are storm-based, meaning areas are warned based on the expected risk and impact. If you are anywhere within a warning polygon, you are at risk.

A great way to get the latest warnings, watches and advisories for user defined areas is to sign up for the InteractiveNWS Mobile Alerting.

#### iNWS MOBILE ALERTING

Receive customized text message and e-mail alerts for National Weather Service products that you care about.

<http://inws.wrh.noaa.gov/>



InteractiveNWS (iNWS) is the home of new mobile and desktop innovations of the National Weather Service. This application suite allows NWS partners to receive National Weather Service products in new and innovative ways, such as text messaging and mobile-enabled webpages. The iNWS strives to fulfill our mission of protecting life and property by using new technology to reach out to our customers.

Here are some reminders on warning thresholds and resources.

#### Severe Thunderstorm Warnings

Issued for thunderstorms producing

- Damaging winds of 58 mph (50 kts) or greater and / or
- Large hail of 1" in diameter or larger

<http://www.crh.noaa.gov/product.php?site=sgf&product=SVR&issuedby=sgf>

#### Tornado Warnings

Issued When

- A thunderstorm is expected and radar indicates a tornado has formed.
- A confirmed tornado has developed.

<http://www.crh.noaa.gov/product.php?site=sgf&product=TOR&issuedby=sgf>

#### Flash Flood Warning

Issued for when flash flooding is observed or imminent.

<http://www.crh.noaa.gov/product.php?site=sgf&product=FFW&issuedby=sgf>

#### Significant Weather Alerts

Issued for strong thunderstorms approaching severe limits with winds up to 50 mph and hail up to the size of nickels.

<http://www.crh.noaa.gov/product.php?site=sgf&product=SPS&issuedby=sgf>

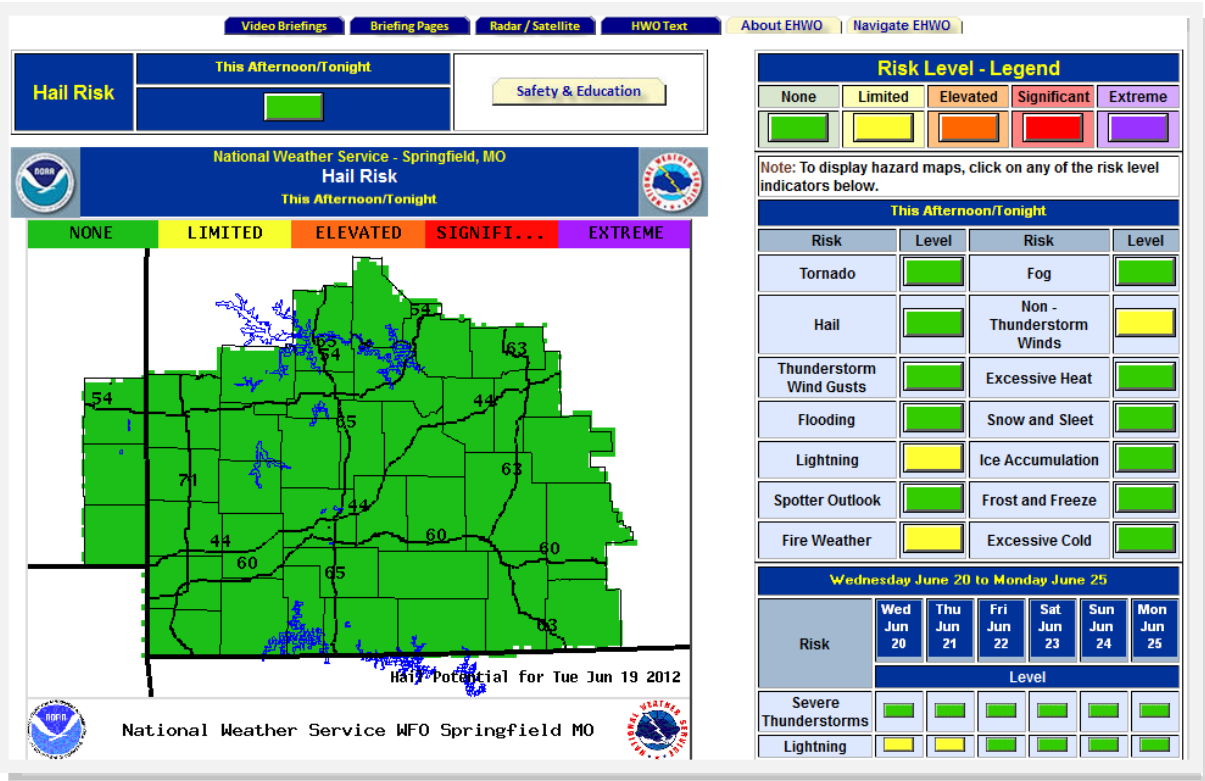


## ENHANCED HAZARDOUS WEATHER OUTLOOK

### YOUR "HEADS UP" BEFORE HAZARDUS WEATHER STRIKES

Monitor the Enhanced Hazardous Weather Outlook (EHWO) for the latest expectations of weather hazards through the next seven days. The EHWO is intended to be a decision support service that enhances preparedness and response efforts prior to and during hazardous weather. This service provides decision makers with convenient access to potential weather hazard information by graphically depicting the risk of various weather hazards out through seven days.

<http://www.crh.noaa.gov/sgf/?n=hwo>



THIS HAZARDOUS WEATHER OUTLOOK IS FOR PORTIONS OF THE MISSOURI OZARKS AND EXTREME SOUTHEAST KANSAS.

.DAY ONE...TODAY AND TONIGHT.

WEATHER HAZARDS EXPECTED...

LIMITED FOG RISK.  
ELEVATED FIRE WEATHER RISK.

DISCUSSION...

PATCHY FOG WILL BE POSSIBLE EARLY THIS MORNING OVER PARTS OF SOUTH CENTRAL MISSOURI.

GUSTY SOUTHWEST WINDS...WARMER TEMPERATURES...AND LOW AFTERNOON HUMIDITY WILL LEAD TO AN ELEVATED FIRE WEATHER RISK THIS AFTERNOON AND AGAIN TUESDAY. WIND GUSTS UP TO 30 MPH WILL BE POSSIBLE.

.DAYS TWO THROUGH SEVEN...TUESDAY THROUGH SUNDAY.

A STRONG COLD FRONT TUESDAY NIGHT WILL PRODUCE PRECIPITATION THAT WILL TRANSITION FROM RAIN TO WET SNOW IN SOME AREAS. VERY LITTLE OR NO ACCUMULATION IS EXPECTED. WIND GUSTS BEHIND THE COLD FRONT WILL BE UP TO 35 MPH.

ELEVATED FIRE DANGER WILL AGAIN BE POSSIBLE FRIDAY WITH WARMER TEMPERATURES AND BREEZY CONDITIONS.

.SPOTTER INFORMATION STATEMENT...

SPOTTER ACTIVATION WILL NOT BE NEEDED THROUGH TONIGHT.

The text portion of the EHWO (left) provides a listing of expected weather hazards and discussion for the current day, in addition to a summary of anticipated hazards through days 2- 7. The Spotter Outlook section provides guidance for storm spotter deployment over the next three and six hour periods. The NWS will update this graphic as storms bare down on the region as a way to enhance your situational awareness.

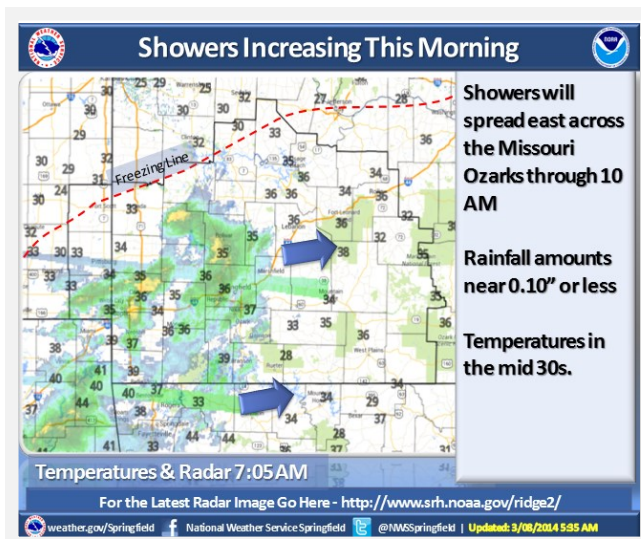




## BRIEFING SERVICES

### STAY UP-TO-DATE ON CRITICAL WEATHER CONDITIONS

NWS Springfield issues non-routine weather briefing services to highlight significant if not critical weather situations. These briefings are issued on as needed basis to highlight expected or ongoing significant weather events.



### Short Term Graphicast

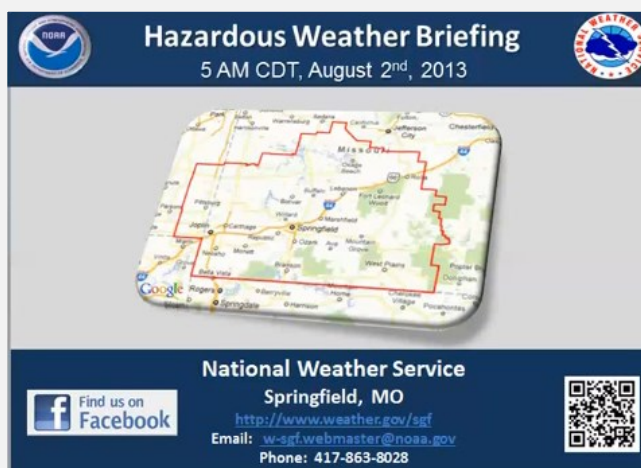
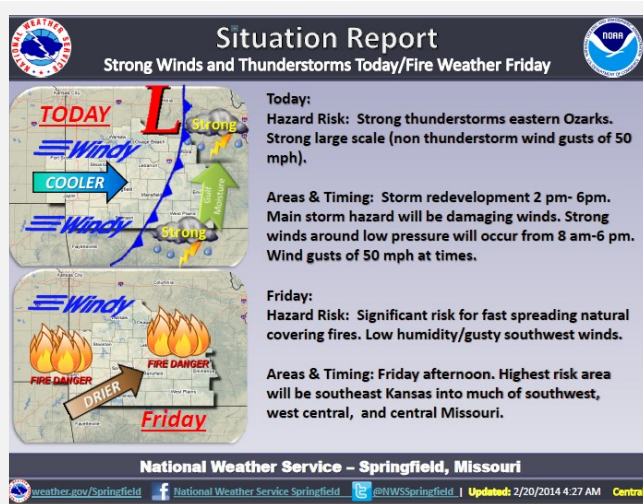
The Graphicast is a graphical representation of expected significant weather conditions including radar trends, timing and magnitude of weather, temperature trends, etc.. Graphicast will be issued on 1-3 hour basis when conditions warrant.

<http://www.crh.noaa.gov/nowcast.php?site=sgf>

### Situation Reports

Situation Reports are issued to core partners prior to and during significant weather situations to provide an overview as well as more specifics related to weather hazard risk and expectations. These are sometimes issued in place of web briefings during rapidly evolving weather situations.

<http://www.crh.noaa.gov/images/sgf/sitrep/sitreport.pdf>



### Web Briefings

Multi-media Web Briefings are generally issued one to three days prior to the potential of significant hazardous weather events including severe weather outbreaks, significant flooding, and winter storms.

<http://www.crh.noaa.gov/sgf/?n=webbriefing>



## DECISION SUPPORT BRIEFING PAGES

### YOUR ONE STOP SHOP FOR HAZARDOUS WEATHER MONITORING

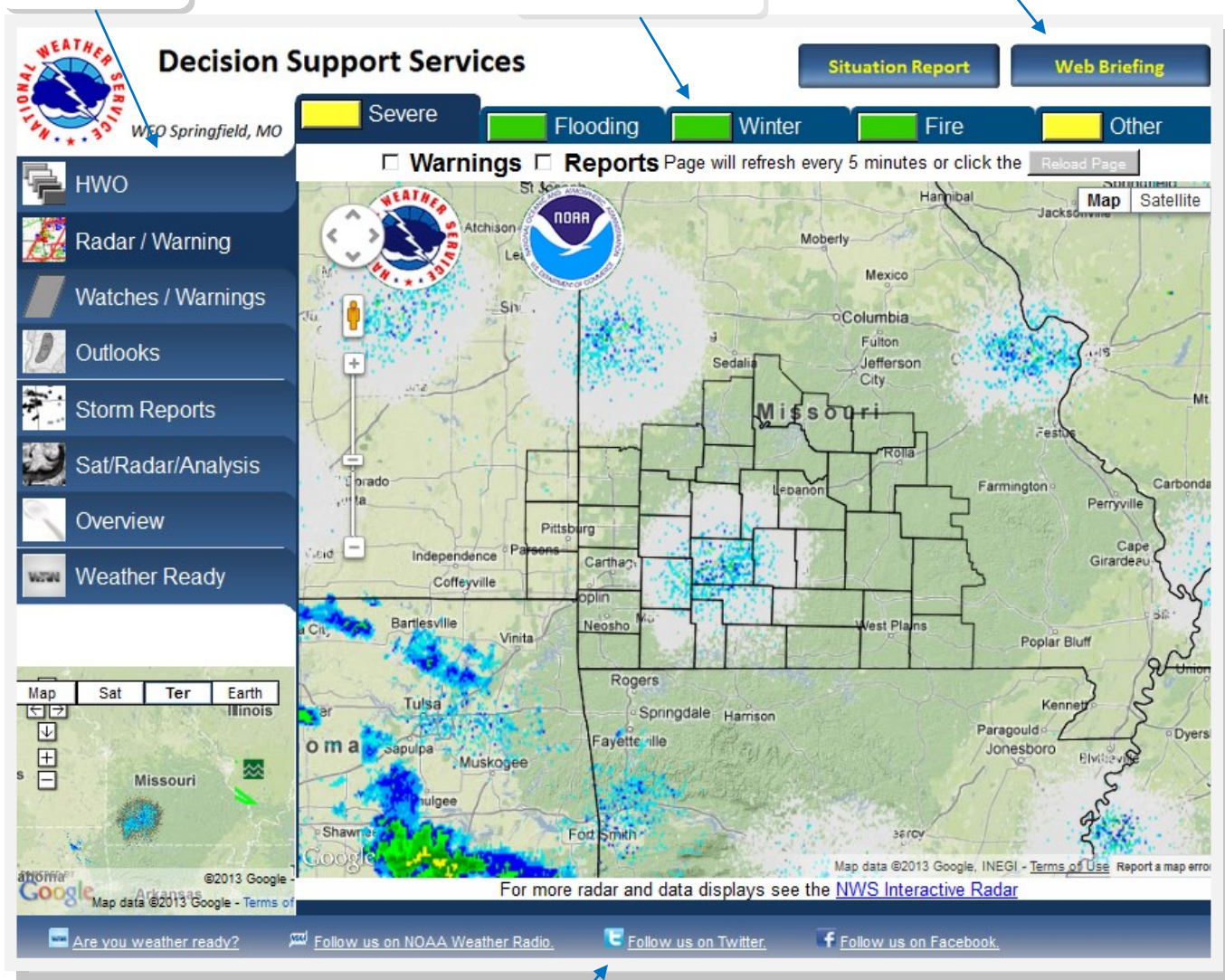
NWS Springfield has updated packaged briefing pages that incorporate more options based on event type and geospatial interfaces. The intent of these pages is provide a one-stop shop for an overview of current and expected weather conditions. The DSS Briefing Page suite consist of individual sections including 1) Severe, 2) Flooding, 3) Winter, 4) Fire, and 5) Other which encompasses non-precipitation hazard information. Within each section you are provided a tabbed menu.

<http://www.crh.noaa.gov/sgf/?n=dss1>

Information Tabs

Weather Hazard Sections

Direct Links to Web Briefing &  
Situation Report Weather Hazard



Social Media Resources





## STAY CONNECTED

### NATIONAL WEATHER SERVICE CHAT

NWSChat is a vital means of communication. Core partners in the emergency management, law enforcement, and media communities are encouraged to actively participate. NWSChat allows real-time communication to discuss forecasts, clarify information or share storm reports. Each chat room is automatically populated with the latest watches, warnings, and advisories, and updates to important products like the Hazardous Weather Outlook and Area Forecast Discussion. This feature provides users with an excellent monitoring and situational awareness tool during potentially hazardous weather events.

NWSChat is open to those in the

media, emergency management, amateur radio net controllers and law enforcement communities, as well as other local, state, and Federal government partners. NWSChat can be utilized on Windows, Linux, and Macintosh operating systems. Several applications for mobile devices have also been recently developed. In addition, a web-based version of chat, called "NWSChat Live" is now available!

Additional information on NWSChat, including a link to NWSChat Live, is available at <https://nwsschat.weather.gov/>

### NWS SPRINGFIELD NOW ON TWITTER!

NWS Forecast Offices have individual office Twitter Accounts! These accounts are used to post general weather information, call attention to significant weather events and provide another avenue for the public to interact with the NWS.

Please note, as with our involvement on Facebook, Twitter is an experimental communications tool. Therefore, it is not designed for the dissemination of critical weather information, such as forecasts or warning information; NOAA Weather Radio, local media, and [weather.gov/sgf](http://weather.gov/sgf) should be your primary sources to get information during severe weather events. However,

friends of the NWS are encouraged to follow us and pass on any reports of severe weather, be sure to use the following hash tags: #MOWX, #KSWX, and #WXreport or tag us using @NWSSpringfield.

To visit the NWS Springfield Twitter page, visit the following webpage:

<https://twitter.com/#!/nwsspringfield>



### SPRINGFIELD, MO FORECAST OFFICE

The mission of the National Weather Service, part of the National Oceanic and Atmospheric Administration is to issue weather, water, and climate forecasts and warnings for the protection of life and property and enhancement of the economy.

The Springfield National Weather Service Forecast Office has 24 hours a day, seven days a week forecast and severe weather warning responsibility for 37

counties in the Missouri Ozarks and extreme eastern Kansas. In addition, specialized forecasts are issued for aviation interests at the Springfield, Branson, and Joplin airports. The office is also one of 92 stations with responsibility for twice a day weather balloon observations.

More information on the Springfield, MO Forecast Office, as well as local forecast information, can be found on our website,

[www.weather.gov/springfield](http://www.weather.gov/springfield).

### ABOUT THIS PUBLICATION

This publication has been designed to enhance readiness and decision response by the emergency management community, media, DOT, and other critical partners. Decision Support Newsletters will generally be published several times a year, usually at the start of a new season.

If you have a suggestion for this publication, or feedback on National Weather Service products and services, please don't hesitate to contact us.

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